
Chavez selected for Caltech Distinguished Alumni Award

May 6, 2014



California Institute of Technology is recognizing David E. Chavez of High Explosives Science and Technology (WX-7) with a Distinguished Alumni Award for 2014. Chavez (BS with honor in chemistry, '96) is among six Caltech alumni receiving the Distinguished Alumni Award this year. First presented in 1966, the award is the highest honor presented by Caltech to its alumni.

Caltech is honoring Chavez for his extensive, groundbreaking contributions and leadership in chemistry. Chavez is an expert in developing high-nitrogen materials that are now being used in a wide variety of applications. Of all past Distinguished Alumni Award recipients recognized for contributions in science, he won the award the soonest after graduation. Chavez is also the first LANL employee to receive this honor.

After graduating from Caltech, Chavez attended Harvard University as a National Science Foundation and Beinecke Memorial predoctoral fellow, obtaining a doctorate

in chemistry. He began his postdoctoral studies at Los Alamos in 2003 as a Frederick Reines Distinguished Fellow and became a staff member in 2006. Chavez is a team leader at LANL and a project leader in the DOE/DoD Joint Munitions Program. He investigates synthetic organic chemistry applied to the development of novel high-energy materials.

Chavez's achievements

Chavez has explored the creation of materials composed largely of nitrogen (high-nitrogen materials) with applications as propellants, explosives, and pyrotechnics. These innovative materials possess properties not attainable by conventional energetic materials and are important to national security missions. Many of the materials developed are either eco-friendly or are produced by environmentally friendly processes. Disneyland and other public venues use his reduced smoke pyrotechnics. Chavez is developing functional materials with chemical properties that can be controlled on-demand for energy and material science applications. He has published over 50 papers in the areas of organic chemistry and energetic materials synthesis and holds 10 patents in energetic materials and pyrotechnics. Chavez has received the Ernest Orlando Lawrence Award from the DOE, placing him in an elite group at Caltech that includes Richard Feynman.

Chavez is an invited professor at the Ecole Normale Supérieure in France and an adjunct chemistry professor at the University of New Mexico-Taos campus. He is the president of the Taos Municipal School Board, president of the advisory council for University of New Mexico-Taos and a member of the Los Alamos Employees scholarship fund advisory committee.

Distinguished Alumni Award

Through the award, Caltech recognizes alumni who have made significant contributions to the world through their work and have become leaders in business, engineering, science, and other fields. The Distinguished Alumni Award recipients will be honored on May 17 in a ceremony on the Caltech campus.

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